

REMARKS

Claims 1, 2, and 4-6 are now currently pending in the present application. Claims 1 and 2 have been amended to incorporate the subject matter of claims 3 and 7. Further, claims 1 and 2 have been amended in accordance with the present specification, at least, at page 7, lines 17-21. Consequently, claims 3 and 7 have now been cancelled. No new matter has been added by way of the present claim amendments.

Rejection under 35 U.S.C. §102

Claims 1-5 stand rejected under 35 U.S.C. §102(b) as being anticipated by JP 2003-012422 (hereinafter “Yasuyori”).

Claims 1 and 2 have been amended herein to incorporate the subject matter of now cancelled claim 7. The subject matter of claim 7 was not subject to the outstanding claim rejection. Thus, claims 1 and 2 now recite a feature that is not covered by Yasuyori. Withdrawal of the outstanding claim rejection is respectfully requested.

Rejection under 35 U.S.C. §103

Claims 6 and 7 stand rejected under 35 U.S.C. § 103 as being unpatentable over Yasuyori in view of USP 6,695,227 to Hayashi et al. (hereinafter “Hayashi”). Applicants respectfully traverse.

Yasuyori discloses the weight ratio of a solution to a propellant as 4/6 to 1/9 (i.e., 10-40% by weight). *See* paragraph [0015]. Thus, the minimum amount of the solution is 10% by weight. It should be noted that the solution consists of a large amount of solvent and a very small amount of active component. The active component is present in an amount of 0.01 to 5% by weight of the solution. *See* paragraph [0008]. Thus, the remaining portion in the solution is solvent.

In view of this feature in Yasuyori, Applicants have amended the claims to limit the amount of the solvent to 0 to 8% by volume. Due to the difference in units between % volume and % weight, Applicants acknowledge that there might be some variation in the range depending on the amount and specific gravity of a solvent and a propellant to be used. Nonetheless, Applicants respectfully submit that regardless of any such variation, the present invention is not obvious over Yasuyori because of the upper limit of 8% by volume. That is Yasuyori does not teach or suggest minimizing the amount of a solvent.

The present invention achieves the advantageous property of low pollution by using a minimal amount of a solvent. *See* the present specification, Table 1, page 16. The present invention also has the advantage of maintaining disinsectization efficacy by using sprayed particles having a large particle size.

Generally, with no solvent or a very small amount of a solvent, the adhesion ratio of sprayed particles to insects is lowered and disinsectization efficacy is thus decreased. That is, with a larger amount of solvent, sprayed particles can generally have a larger particle size, so as not to be influenced by wind. As a result, the adhesion ratio to insects is increased while disinsectization efficacy is improved. The size of sprayed particles is essential because the adhesion ratio is affected by wind flow due to the airflow in a room and wingbeats of insects.

In the present invention, in order to avoid reduction in the size of sprayed particles due to a minimal presence of solvent, the nozzle size of the actuator and the pressure in the pressure-resistant container are adjusted to make size of the sprayed particles larger, so as to increase adhesion ratio to insects and thereby maintain disinsectization efficacy. To that end, the subject matter of now cancelled claims 3 and 7 have been incorporated into claims 1 and 2. *See* the present specification, at least, at page 4, line 16 – page 5, line 1. *See also* the present specification, Tables 5 and 7, pages 25 and 30, respectively.

It should be noted that the particle size is largest just upon spraying, and becomes smaller as the particles are dispersed. The size of sprayed particles (15-45 µm) in the present invention, even at a distance of 200 cm, are substantially the same as that of Yasuyori at a distance of 50 cm. Yasuyori teaches a particle size range of 20-40 µm, see paragraph [0013]. Accordingly, it is apparent that the size of sprayed particles of the present invention are much larger than those disclosed in Yasuyori.

Accordingly, the advantageous effects of the present invention are achieved by both the amount of the solvent used and the size of the sprayed particles. In contrast, Yasuyori does not teach or suggest these essential features of the present invention. Moreover, Applicants respectfully submit that Hayashi does not cure the noted deficiencies of Yasuyori.

As the Examiner correctly noted, Hayashi describes that the propellant and spraying pressure are adjusted. However, Applicants respectfully submit that the adjustments are merely generically disclosed. That is, Hayashi is silent with respect to the specific amount of solvent and the size of the sprayed particles. Thus, there is no teaching or suggestion that these features may be modified to obtain an unexpectedly superior disinsectization aerosol.

Evidence of unobvious or unexpected advantageous properties, such as superiority in a property the claimed compound shares with the prior art, can rebut *prima facie* obviousness. *In re Chupp*, 816 F.2d 643, 646, 2 USPQ2d 1437, 1439 (Fed. Cir. 1987). Examiners must consider comparative data in the specification which is intended to illustrate the claimed invention in reaching a conclusion with regard to the obviousness of the claims. *In re Margolis*, 785 F.2d 1029, 228 USPQ 940 (Fed. Cir. 1986).

In the present instance, Applicants have demonstrated that the specific amount of solvent and the size of the sprayed particles yield an unexpectedly superior product as compared to the cited prior art. Neither of the cited prior art references recognizes these essential features of the present invention as being “result-effective”. That is, neither Yasuyori nor Hayashi recognize that

modification of these features achieves a recognized result, such that the determination of the optimum or workable ranges of the features might properly be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).

Accordingly, Applicants respectfully request reconsideration and withdrawal of the outstanding rejection.

In view of the foregoing, Applicants believe the pending application is in condition for allowance. A Notice of Allowance is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Monique T. Cole, Reg. No. 60,154 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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